

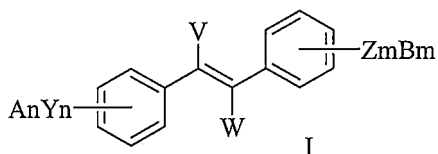
IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

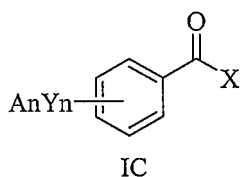
Listing of Claims:

1-4. (Canceled)

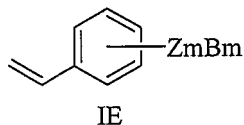
5. (Original) A process for preparing a compound of Formula I



where each Y is -O or halogen, each Z is -O or halogen, each n is independently the value of 0, 1, 2, 3, 4 or 5, each m is independently the value of 0, 1, 2, 3, 4 or 5, each A is independently selected from P_n, R or absent, each B is independently selected from H, R or absent, each V is independently selected from P_n, straight or branched alkyl of from 1 to 6 carbon atoms and cycloalkyl of from 3 to 8 carbon atoms, alkoxy, phenyl, benzyl or halogen, each W is independently selected from H, straight or branched alkyl of from 1 to 6 carbon atoms and cycloalkyl of from 3 to 8 carbon atoms, alkoxy, phenyl, benzyl or halogen, where R is selected from the group alkyl with at least one carbon atom, aryl and aralkyl, P_n is an alcohol protecting group and diastereoisomers of the foregoing, comprising the step of coupling a benzoyl halide compound of Formula IC

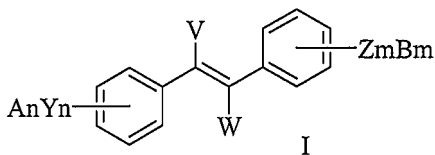


where X is halogen, with a 4-substituted styrene compound of Formula IE

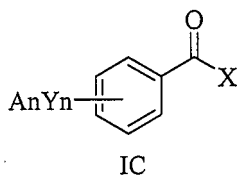


in solution or in suspension of a first solvent, transition metal catalyst, N-heterocyclic carbene-type ligand and a first base.

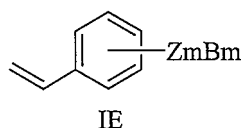
6. (Original) A process for preparing a compound of Formula I



where each Y is -O or halogen, each Z is -O or halogen, each n is independently the value of 0, 1, 2, 3, 4 or 5, each m is independently the value of 0, 1, 2, 3, 4 or 5, each A is independently selected from P_n, R or absent, each B is independently selected from H, R or absent, each V is independently selected from P_n, straight or branched alkyl of from 2 to 6 carbon atoms and cycloalkyl of from 3 to 8 carbon atoms, alkoxy, phenyl, benzyl or halogen, each W is independently selected from H, straight or branched alkyl of from 1 to 6 carbon atoms and cycloalkyl of from 3 to 8 carbon atoms, alkoxy, phenyl, benzyl or halogen, where each R is independently selected from alkyl with at least two carbon atoms, aryl and aralkyl, P_n is an alcohol protecting group and diastereoisomers of the foregoing, comprising the step of coupling a benzoyl halide compound of Formula IC

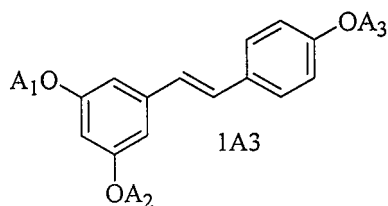


where X is halogen, with a 4-substituted styrene compound of Formula IE



in solution or in suspension of a first solvent, transition metal catalyst, N-heterocyclic carbene-type ligand and a first base.

7. (Currently Amended) A process for preparing resveratrol from compounds of Formula 1A3

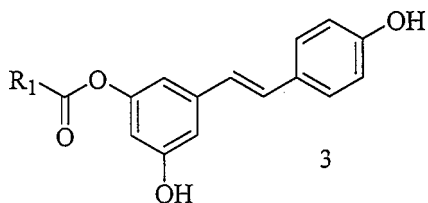


where A_1 is selected from P_1 and $(CO)R_1$, A_2 is selected from P_2 and $(CO)R_2$, A_3 is selected from P_3 and $(CO)R_3$, where P_1 when present is a first alcohol protecting group, P_2 when present is a second alcohol protecting group, P_3 when present is a third alcohol protecting group, R_1 , R_2 and R_3 when present are each independently selected from alkyl with at least one carbon atom, aryl, aralkyl, and diastereoisomers of the foregoing, comprising the step or steps:

- (a) reacting ~~said the~~ compounds of Formula 1A3 with a first base in a first solvent; and/or,
- (b) reacting ~~said the~~ compounds of Formula 1A3 with one or more deprotection reactants to remove ~~said the~~ alcohol protecting groups P_1 , P_2 and P_3 .

8. (Canceled)

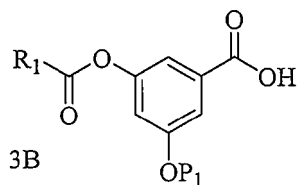
9. (Currently Amended) ~~A process for~~ The method of claim 5, further comprising preparing a compound of Formula 3



pharmaceutically and cosmetically acceptable salts thereof where R_1 is selected from alkyl with at least one carbon atom, aryl, aralkyl, and diastereoisomers of the foregoing, comprising:

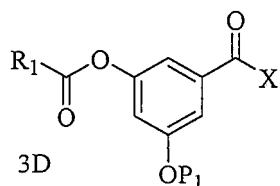
- (a) esterifying a first alcohol of resorcylic acid with an acylating agent in solution or in suspension of a first solvent;
- (b) reacting a second alcohol of resorcylic acid with a first alcohol protecting agent in solution or in suspension of a second solvent,

wherein the sequence of steps (a) and (b) are interchangeable, to give the mono-ester, mono-protected alcohol of Formula 3B



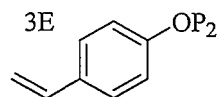
where P₁ is a first alcohol protecting group;

(c) halogenating ~~said~~the compound of Formula 3B using a halogenating agent in solution or in suspension of a third solvent to give the acid halide of Formula 3D

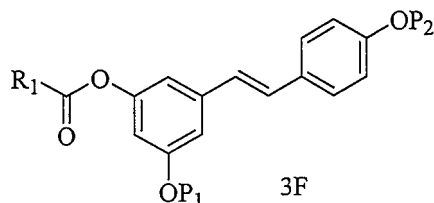


where X is halogen;

(d) coupling ~~said~~the compound of Formula 3E with a compound of Formula 3D



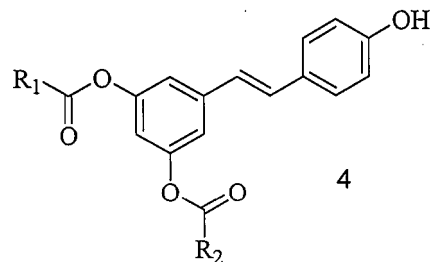
where P₂ is a second alcohol protecting group, with transition metal catalyst, N-heterocyclic carbene-type ligand, and a first base in solution or in suspension of a fourth solvent to yield a compound of Formula 3F;



(e) deprotecting ~~said~~the first and second alcohol protecting groups from ~~said~~the compound of Formula 3F to give the compound of Formula 3.

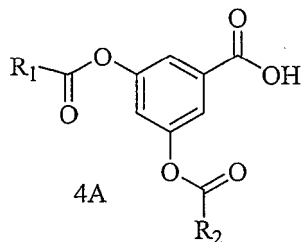
10. (Canceled)

11. (Currently Amended) ~~A process for~~ The method of claim 5 further comprising preparing a compound of Formula 4

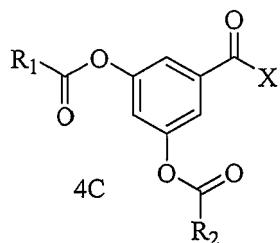


pharmaceutically and cosmetically acceptable salts thereof where R_1 and R_2 are independently selected from alkyl with at least one carbon atom, aryl, aralkyl, and diastereoisomers of the foregoing, comprising:

(a) esterifying resorcylic acid with an acylating agent in solution or in suspension of a first solvent to give the 3,5-diester of resorcylic acid of Formula 4A;

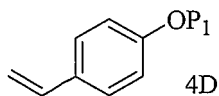


(b) halogenating ~~said~~the compound of Formula 4a using a halogenating agent in solution or in suspension of a second solvent to give the acid halide of Formula 4C

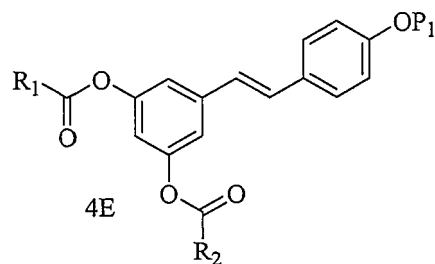


where X is halogen;

(c) coupling ~~said~~the compound of Formula 4C with a compound of Formula 4D



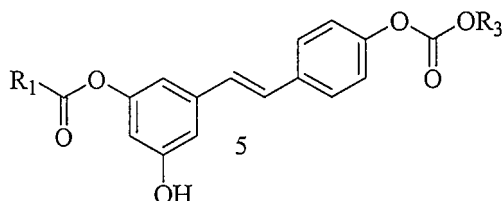
where P_3 is a first alcohol protecting group, with transition metal catalyst, N-heterocyclic carbene-type ligand, and a first base in solution or in suspension of a third solvent to yield a compound of Formula 4E;



(d) deprotecting ~~said~~the first alcohol protecting group from ~~said~~the compound of Formula 4E to give the compound of Formula 4.

12. (Canceled)

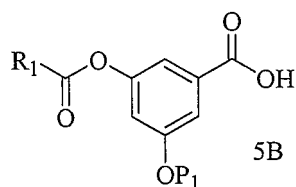
13. (Currently Amended) ~~A process for~~The method of claim 5 further comprising preparing a compound of Formula 5



pharmaceutically and cosmetically acceptable salts thereof where R_1 and R_3 are independently selected from alkyl with at least one carbon atom, aryl, aralkyl, and diastereoisomers of the foregoing, comprising:

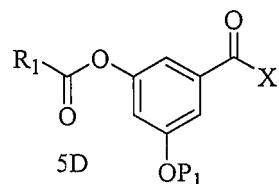
- (a) esterifying a first alcohol of resorcylic acid with an acylating agent in solution or in suspension of a first solvent;
- (b) reacting a second alcohol of resorcylic acid with a first alcohol protecting agent in solution or in suspension of a second solvent,

wherein the sequence of steps (a) and (b) are interchangeable to give the mono-ester, mono-protected alcohol of Formula 5B



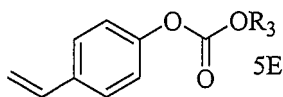
where P_1 is a first alcohol protecting group;

- (c) halogenating ~~said~~the compound of Formula 5B using a halogenating agent in solution or in suspension of a third solvent to give the acid halide of Formula 5D

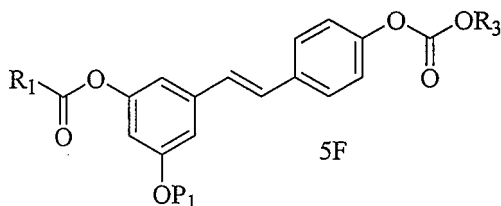


where X is halogen;

(d) coupling ~~said~~the compound of Formula 5D with a compound of Formula 5E



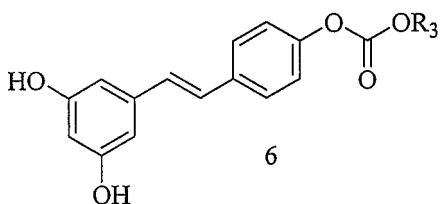
with transition metal catalyst, N-heterocyclic carbene-type ligand, and a first base in solution or in suspension of a fourth solvent to yield a compound of Formula 5F;



(e) deprotecting ~~said~~the first and second protecting groups from ~~said~~the compound of Formula 5F to give a compound of ~~said~~the Formula 5.

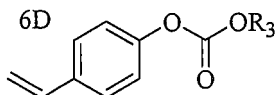
14. (Canceled)

15. (Currently Amended) ~~A process for~~ The method of claim 5 further comprising preparing a compound of Formula 6

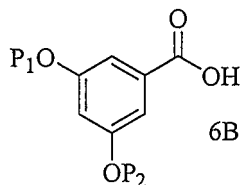


pharmaceutically and cosmetically acceptable salts thereof where R₃ is selected from alkyl with at least one carbon atom, aryl, aralkyl, and diastereoisomers of the foregoing, comprising:

(a) esterifying 4-hydroxy styrene with an acylating agent in solution or in suspension of a first solvent to give the 4-ester styrene of Formula 6D;

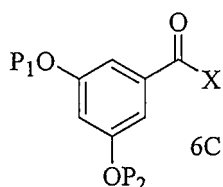


(b) reacting resorcylic acid with an alcohol protecting agent in solution or in suspension of a second solvent to give a compound of Formula 6B



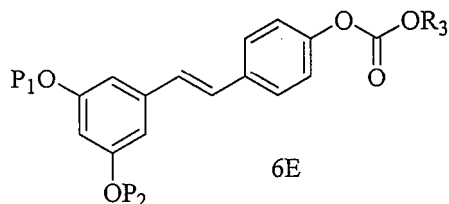
where P₁ is a first alcohol protecting group and P₂ is a second alcohol protecting group;

(c) halogenating ~~said~~the compound of Formula 6B using a halogenating agent in solution or in suspension of a third solvent to give the acid halide of Formula 6C



where X is halogen;

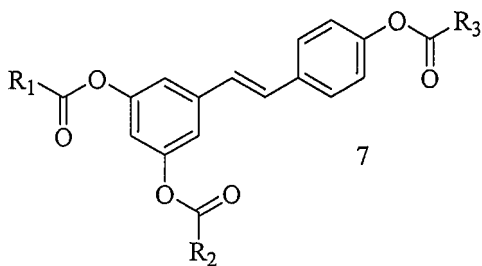
(d) coupling ~~said~~the compound of Formula 6D with a compound of Formula 6C with transition metal catalyst, N-heterocyclic carbene-type ligand, and a first base in solution or in suspension of a fourth solvent to yield a compound of Formula 6E;



(e) deprotecting ~~said~~the first alcohol protecting group from ~~said~~the compound of Formula 6E to give the compound of Formula 6.

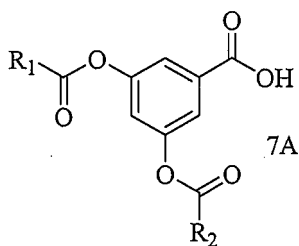
16. (Canceled)

17. (Currently Amended) ~~A process for~~ The method of claim 5 further comprising preparing a compound of Formula 7

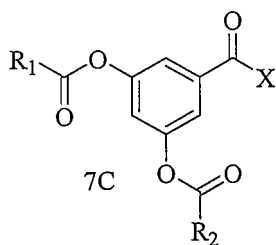


pharmaceutically and cosmetically acceptable salts thereof where R₁, R₂ and R₃ are independently selected from alkyl with at least one carbon atom, aryl, aralkyl, and diastereoisomers of the foregoing, comprising:

(a) esterifying resorcylic acid with an acylating agent in solution or in suspension of a first solvent to give the 3,5-diester of resorcylic acid of Formula 7A;

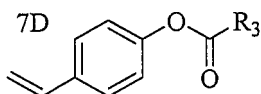


(b) halogenating ~~said~~ the compound of Formula 7A using a halogenating agent in solution or in suspension of a second solvent to give the acid halide of Formula 7C



where X is halogen;

(c) coupling ~~said~~ the compound of Formula 7C with a compound of Formula 7D



with transition metal catalyst, N-heterocyclic carbene-type ligand, and a first base in solution or in suspension of a third solvent.

18-54. (Canceled)

55. (New) The processes according to claim 5, where the N-heterocyclic carbene-type ligand is selected from imidazolium, 1,3-disubstituted imidazolium, 1,3-disubstituted-4,5-dihydroimidazolium carbene-type ligands.

56. (New) The processes according to claim 6, where the N-heterocyclic carbene-type ligand is selected from imidazolium, 1,3-disubstituted imidazolium, 1,3-disubstituted-4,5-dihydroimidazolium carbene-type ligands.

57. (New) The processes according to claim 7, where the N-heterocyclic carbene-type ligand is selected from imidazolium, 1,3-disubstituted imidazolium, 1,3-disubstituted-4,5-dihydroimidazolium carbene-type ligands.

58. (New) The processes according to claim 5, where the N-heterocyclic carbene-type ligand is N,N'-bis-carbocycle imidazolium ligands.

59. (New) The processes according to claim 6, where the N-heterocyclic carbene-type ligand is N,N'-bis-carbocycle imidazolium ligands.

60. (New) The processes according to claim 7, where the N-heterocyclic carbene-type ligand is N,N'-bis-carbocycle imidazolium ligands.

61. (New) The processes according to claim 5, where the N-heterocyclic carbene-type ligand is selected from N,N'-bis-(2,6-diisopropylphenyl) imidazolium chloride, N,N'-bis-(dimesityl) imidazolium chloride and N,N'-bis-adamantylimidazolium chloride.

62. (New) The processes according to claim 6, where the N-heterocyclic carbene-type ligand is selected from N,N'-bis-(2,6-diisopropylphenyl) imidazolium chloride, N,N'-bis-(dimesityl) imidazolium chloride and N,N'-bis-adamantylimidazolium chloride.

63. (New) The processes according to claim 7, where the N-heterocyclic carbene-type ligand is selected from N,N'-bis-(2,6-diisopropylphenyl) imidazolium chloride, N,N'-bis-(dimesityl) imidazolium chloride and N,N'-bis-adamantylimidazolium chloride.

64. (New) The processes according to claims 5, where the transition metal catalyst is a Pd II catalyst selected from the group consisting of: Pd(OAc)₂, PdBr₂, and PdCl₂.

65. (New) The processes according to claims 6, where the transition metal catalyst is a Pd II catalyst selected from the group consisting of: Pd(OAc)₂, PdBr₂, and PdCl₂.

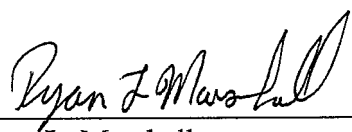
66. (New) The processes according to claims 7, where the transition metal catalyst is a Pd II catalyst selected from the group consisting of: Pd(OAc)₂, PdBr₂, and PdCl₂.

67. (New) The method of claim 5, wherein R is selected from the group alkyl with at least two carbon atoms.

68. (New) The method of claim 6, wherein R is selected from the group alkyl with at least two carbon atoms.

Respectfully submitted,

Date: July 20, 2006

By: 
Ryan L. Marshall
Reg. No. 47,770